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ABSTRACT

In this study, two different approaches to the teaching of reading were designed and presented over an eight-week period, then evaluated according to student scores on three standardized tests. After a pretest, nine first-grade classes were randomly assigned to one of three groups: literature, concept development, or control. In the literature section, 40 picture-story books were selected that had high measures of linguistic complexity. Lesson plans included introductory questions, oral reading by the teacher, comprehension questions, vocabulary, and extended activities. The concept development approach consisted of 40 lesson plans designed to develop such concepts as in/out, off/on, and over/under. Pictures or three-dimensional objects were used for demonstration, and students were actively involved in using the concept in context. The results of the study support earlier research by showing that the use of literature has a positive effect on vocabulary growth and reading achievement. (MAI)

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A Study of Vocabulary and Syntactic Complexity in Developmental First Grade Readers

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Concern about effect of method on reading performance and language acquisition has been considerable, and this has generated a variety of research projects. The USOE Coordinated First Grade Reading Research Project (Bond and Dykstra, 1967), Allen (1961) and others have studied the effects of a specific reading method on reading performance. The general conclusions led to the belief that the major factor was the teacher. Recent studies have shown specific factors to have an influence on reading achievement and language acquisition. Chomsky (1972) examined

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the relationship between children's exposure to the written language in books and rate of linguistic development. The results show a strong correlation between a number of reading exposure measures and language development. Cohen (1968) studied the effect of literature on vocabulary and reading achievement. Among her conclusions were: stories read aloud to children affects the transition from oral language to reading; the slower the children are in academic progress, the more they need vocabulary work in context; and, a relationship exists between oral language and reading. Stanchfield (1971) studied the effect of structured vs. non-structured curriculums in the development of pre-reading skills in a kindergarten program. She determined that children who were taught in a structured program with appropriate materials achieved significantly more than children in a non-structured program.

These and other studies point to an on-going interest about what does affect reading and language acquisition. There is a need for additional research to verify the trends that are beginning to emerge from research already conducted.

Purpose of the Study

This study was undertaken to investigate the effect of two treatments (Literature and Concept Development) on students' scores on the Peabody Picture Vocabulary Test, the Linguistic Structures Repetition Test, and the Boehm/Slater Cognitive Skills Assessment Battery.

Method

Subjects

Nine classes were randomly selected from two economic-level groups of the 22 available developmental first grade classes in a small, south-

eastern city. Students were placed in these classes based on low scores on the MacMillan Readiness Test. Number of students enrolled in the nine classes was 176.

Instruments

The Peabody Picture Vocabulary Test was used as a measure of vocabulary growth. To offset possible differences in Forms A and B, these forms were administered alternately to students in the pre-test situation. In the post-test situation, a student having taken Form A in the pre-test was administered Form B and vice versa.

The Linguistic Structures Repetition Test is a measure of children's control over certain specific linguistic structures typically acquired after more basic structures. Structures tested include such items as unmarked indirect object, unmarked adjective clauses, and irregular noun and verb forms. There is one form of the test.

The Boehm/Slater Cognitive Skills Assessment Battery is a general measure of knowledge and performance including color and shape indentification; picture and story comprehension; visual-motor and large muscle coordination; symbol, visual-auditory, and auditory discrimination; number knowledge and letter naming. There is only one form of the test.

Treatments

Two treatments were designed. Treatment 1 (Literature) consisted of 40 lesson plans using picture-story books as a basis for the plan. Forty books were selected that had high measures of linguistic complexity as determined by t-unit length. Lesson plans were written that included introductory questions, oral reading of the story by the teacher, comprehension questions, vocabulary activities, and extending activities including

language experience, role playing, dramatization, etc.

Treatment 2 (Concept Development) consisted of 40 lesson plans designed to develop specific concepts such as in/out, off/on, over/under, etc. These plans began with an introduction of the concept through a demonstration by the teacher. Pictures or a three-dimensional object were always part of the demonstration. Students were then involved in active participation using the concept in context.

All materials to teach the 80 plans were provided, and they rotated through the classes on a systematic schedule.

Procedures

The nine randomly selected classes were randomly assigned to one of three groups: Treatment 1 (Literature), Treatment 2 (Concept Development), or Control. An in-service meeting was held with the nine teachers and nine principals of the participating classes to explain the procedure. S_s were pre-tested by the researchers on the Peabody and Sentence Repetition Test. The Boehm/Slater had been administered by the teachers at the beginning of the school year. The 40 Treatment 1 and Treatment 2 lesson plans were used on 40 consecutive schools days. Following this eight week period, the researchers administered the post-test of the Peabody and Sentence Repetition Test. The Boehm/Slater was administered during the regular end-of-year testing program.

Results

Analysis of co-variance of the three groups, as summarized in Table 1, indicated that the effect due to method of treatment of the three groups as measured by the Peabody, Linguistic Structures, and Boehm/Slater tests was not statistically significant.

Table 1

Summary of Analysis of Co-Variance
Comparing All Three Groups With
Pre-tests Covaried Out

Source	N	df	MS	F	p	
Peabody	133	2	372.190	1.927	0.147	NS
Linguistic Structures	137	2	4.541	0.243	0.999	NS
Boehm/Slater	162	2	123.436	1.026	0.362	NS

Analysis of co-variance of the two Treatment groups, as summarized in Table 2, indicated that the effect due to method of treatment as measured by the Peabody ($F=4.096$; $df=1, 90$; $p<.05$) was statistically significant. The difference favors Treatment 1 (Literature). The effect due to method of treatment as measured by the Linguistic Structures and Boehm/Slater tests was not statistically significant.

Table 2

Summary of Analysis of Co-Variance
Comparing the Two Treatment Groups
With Pre-tests Covaried Out

Source	N	df	MS	F	p	
Peabody	91	1	872.701	4.096	0.044	*
Linguistic Structures	95	1	3.523	0.215	0.999	NS
Boehm/Slater	111	1	192.474	1.702	0.192	NS

* $P<.05$

Table 3 is a breakdown by group and by school of the pre-test and post-test means as measured by the Peabody. Group 1 (Literature) showed

a significant increase in mean scores.

Table 3

Mean Pre-Test and Post-Test Measures of Vocabulary

Group	N	Pre-test Mean	N	Post-test Mean
Group 1	56	73.482	50	81.680
School 1	22	72.727	16	84.813
School 2	18	68.167	18	75.056
School 3	16	80.500	16	86.000
Group 2	52	76.558	50	77.740
School 1	21	81.048	20	77.950
School 2	13	75.154	12	77.500
School 3	18	72.333	18	77.667
Group 3	48	73.229	50	78.600
School 1	15	73.667	17	78.000
School 2	16	80.500	17	80.647
School 3	17	66.000	16	77.063

Discussion

It is possible that this study was too short in duration to fully accomplish the original intent. Eight weeks is a relatively short time period in which to effect change in linguistic patterns and concept development. It is probable that were the study to be conducted again, the 40 lessons would be used over a span of 20 weeks. This would allow time for reinforcement and extension of each lesson and increase the possibility of growth. It is also possible that other tests would better measure what was learned by S_s in the study.

The results of this study do support the findings of Chomsky (1972) and Cohen (1968) who reported that the use of literature had an effect on vocabulary growth and reading achievement. Analysis of co-variance of the

two treatment groups indicated that Treatment 1 (Literature) had a significantly greater effect on vocabulary development, as measured by the Peabody, than did Treatment 2 (Concept Development). Though analysis of co-variance of the 3 groups (Literature, Concept Development, Control) showed no significant difference, deviation scores adjusted for independents and covariates favored Treatment 1 (Literature). This growing body of knowledge supporting the use of literature as a determining factor in language acquisition and reading achievement could eventually have an impact on the curriculum. Children's books, with their uncontrolled vocabulary and complex linguistic structures, might be an effective tool for teaching reading.

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